

ROZENKNOP, M. F.

ROZENKNOP, M. P. "Perfecting Equipment for Automatic Repeated Switching in of Electric Transmission Lines." Min Higher Education USSR. Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov. Moscow, 1956.
(Dissertation for the Degree of Candidate in Sciences)
TECHNICAL

So: Knizhnava Letopis', No. 17, 1956

BOZENKNOP, M.P.

621.316.545

2699. SWITCHING OFF THE NO-LOAD CURRENT OF A
10 000 KVA TRANSFORMER BY MEANS OF THE ISOLATOR
SWITCH RLN-110. Ya. F. Kuz'min and M. P. Rozenknop.
Elekt. Stantsii, 1956, No. 10, 33-6. In Russian.

Successful switching operations were performed with this switch
at 86 kV on transformers with isolated and solidly earthed neutrals.
Tests carried out included photographing arcs, examining contacts
for burns, and recording oscillographically transient currents.

E. M. Dembinaki

KUZ'MIN, Ya.F., inzhener.; ROZENKNOP, M.P., inzhener.

Use of the RLN-110 disconnecting switch to interrupt the no-load
current of a 10,000 kva transformer. Elek. sta. 27 no.10:33-35 0 '56.
(Electric switchgear) (MLRA 9:12)

ROZENKNOP, M.P., kand.tekhn.nauk

Converting 110-220 kv. lines to operation on two phases under break-down conditions. Elek. sta. 29 no.7:67-69 J1 '58. (MIRA 11:10)
(Electric power distribution--High tension)

KOSTROMIN, A.I., inzhener; ROZENKNOP, M.P., inzhener.

On alternating current drives for circuit breakers. Elektrichestvo
no.4:76 Ap '54. (MLRA 7:5)

1. Orgres MESEK. (Electric circuit breakers)

ROZENKNOP, M.P., kand.tekhn.nauk

Total electromagnetic blocking of disconnectors. Elek.sta. 32
no.6:55-59 Je '61. (MIRA 14:8)
(Electric power distribution)

BUSLENKO, Nikolay Panteleymonovich; SHREYDER, Yuliy Anatol'yevich;
ROZENKNOP, V.D., red.; YERMAKOVA, Ye.A., tekhn. red.

[Method for statistical tests (Monte-Carlo) and use of
digital computers in its realization] Metod statistiche-
skikh ispytaniy (Monte-Karlo) i ego realizatsiia na tsif-
rovyykh vychislitel'nykh mashinakh. Moskva, Gos.izd-vo fiziko-
matem. lit-ry, 1961. 226 p. (MIRA 15:2)

(Electronic digital computers) (Mathematical statistics)

BRUSLENKO, N.P.; GOLENKO, D.I.; SOBOL', I.M.; SRAGOVICH, V.G.;
SHREYDER, Yu.A.; LYUSTERNIK, L.A., red.; YANPOL'SKIY, A.R.,
red.; ROZENKOP, V.D., red.; KRYUCHKOVA, V.N., tekhn. red.

[The method of statistical tests; Monte Carlo method]Metod
statisticheskikh ispytaniy; metod Monte-Karlo. Pod red. IU.A.
Shreidera. Moskva, Fizmatgiz, 1962. 331 p. (MIRA 15:10)
(Mathematical statistics)

MEL'NIKOVA, F.M., inzh.; POZNYAK, E.L., kand.tekhn.nauk; RAYKHLINA, B.B.,
inzh.; ROZENKNOP, V.D., inzh.

Use of automatic digital computers for determining the critical
angular velocity of rotors with multiple supports in large
turbogenerator units. Vest.elektroprom. 32 no.2:1-8 F '61.
(MIRA 15:5)

(Turbogenerators) (Electronic digital computers)

BARSOV, Aleksey Sergeyevich; ROZENKNOP, V.D., red.; BRUDNO, K.F.,
tekhn.red.

[What is linear programming?] Chto takoe lineinoe programmirovaniye.
Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 103 p. (Populiarnye
lektzii po matematike, no.33). (MIRA 13:3)
(Programming (Electronic computers))

KAGAN, Boris Moiseyevich; TER-MIKAELYAN, Teodor Mikhaylovich;
ROZENKNOP, V.D.; TKACH, V.F.

[Solution of engineering problems using digital computers]
Reshenie inzhenernykh zadach na tsifrovyykh vychislitel'-
nykh mashinakh. Izd.2., sovershenno perer. Moskva, Izd-vo
"Energia," 1964. 591 p. (MIRA 17:5)

89807

S/110/61/000/002/001/009

E035/E517

9.7000

AUTHORS: Mel'nikova, F.M., Engineer, Poznyak, E.L., Candidate of Technical Sciences, Raykhlina, B.B., Engineer and Rozenknop, V.D., Engineer

TITLE: The Calculation of Critical Speeds of Large Turbo-Alternators with the Aid of Digital Computers

PERIODICAL: Vestnik elektropromyshlennosti, 1961, No.2, pp.1-8

TEXT: Two difficulties arise in the determination of critical speeds of large machines; firstly, that the values of the various constants to be used in the computation are not always accurately known; and, secondly, that for shafts with many rotating masses and bearings, the numerical computations become exceedingly lengthy. The authors have solved the second problem by using a computer. For large machines the analysis should take into account the 'elasticity' of the oil films in the bearings as well as the masses of the bearings and the elastic constants of their anchorages. These elastic constants are usually different in the horizontal and vertical directions. On the other hand, the analysis can assume that the shaft is everywhere truly circular, and may neglect forces along the shaft, and gyroscopic effects. The analysis depends on Card 1/7

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The Calculation of Critical Speeds

finding two modes of oscillation of the stationary shaft in two independent directions (corresponding to the horizontal and vertical elastic constants of the bearings); then the critical speeds of the shaft will be equal to the frequencies of these two modes. The partial differential equation for a shaft in oscillation is:

$$\mu(x) \frac{\partial^2 y(x,t)}{\partial t^2} + \frac{\partial^2}{\partial x^2} \left[EI(x) \frac{\partial^2 y(x,t)}{\partial x^2} \right] = 0, \quad (2)$$

where x is the distance along the shaft, $\mu(x)$ is the mass/unit length of the shaft at point x , $EI(x)$ is the stiffness at point x , $y(x,t)$ is the deflection of the shaft at point x and time t . The general solution of Eq.(2) is of the form:

$$y(x,t) = y(x) \cos \Omega t \quad (3)$$

where Ω is a critical frequency of speed. With this general solution we can derive an ordinary differential equation:

$$\frac{d^2}{dx^2} \left[EI(x) \frac{d^2 y(x)}{dx^2} \right] - \mu \Omega^2 y(x) = 0. \quad (4)$$

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The Calculation of Critical Speeds... E035/E517

and, with the aid of the differential relations

$$\frac{dM}{dx} = V; \quad \frac{dy}{dx} = \theta, \quad (5)$$

where M is the bending moment; V is the shear force, θ is the slope of the shaft, we can express Eq.(4) as two separate second-order differential equations:

$$\frac{d^2 y}{dx^2} = \frac{d\theta}{dx} = \frac{M}{EI} \quad (6)$$

and

$$\frac{d^2 M}{dx^2} = \frac{dV}{dx} = \mu \Omega^2 y. \quad (7)$$

The boundary conditions for the solution of these two equations can be expressed by considering the bearings at the end of the shaft; there are initially two unknowns at each end. From many possible methods of solution, the following was chosen: Eqs. (6) and (7) are

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The Calculation of Critical Speeds... E035/E517

approximated by finite difference expressions. A value of frequency ω which is within the range being investigated, but is not, in general, equal to a critical frequency, is selected, and the equations are solved twice. For the first solution, one of the unknown boundary conditions at the left hand end of the shaft is given an arbitrary value of 1 and the other is made equal to 0. For the second solution, these boundary conditions are reversed. A linear combination of these two solutions is examined to see whether it satisfies the boundary conditions at the right hand end of the shaft. This will not, in general, be the case; for the boundary conditions will only be satisfied if $\omega = \Omega$. In general, therefore, a function $\Phi(\omega)$, which has the properties that

$$\Phi(\Omega) = 0, \text{ and } \Phi(\Omega + \delta\Omega) \cdot \Phi(\Omega - \delta\Omega) < 0$$

is calculated. Starting at the low end of the frequencies to be investigated, the equations are solved and Φ calculated for steadily increasing values of ω . The presence of a critical speed in the neighbourhood of the current value of ω is detected by a change in the sign of $\Phi(\omega)$. The exact value of the critical frequency can

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The Calculation of Critical Speeds.... E035/E517

then be located by searching between the last two values of ω with successively smaller increments or decrements in ω . A root is found by one of two criteria: a) that $|\Delta\omega| < \epsilon$, or b) that $|\Phi(\omega)| < \epsilon_1$. In the actual example solved, the shaft is represented by a finite approximation consisting of a number of masses connected by a flexible but mass-less shaft. Using recurrence relations for variables such as the shear force and bending moment at the position of the i -th mass in terms of these variables at the $(i-1)$ th mass, and the constants associated with the $(i-1)$ th mass, the finite difference equations can be solved: for example, the recurrence relation for the shear force at the i -th mass is:

$$V_i = V_{i-1} + m_{i-1} y_{i-1} \omega^2 \quad (11)$$

where m_i is the mass of the i -th mass, and y_i is the deflection of the shaft at the i -th mass. The recurrence relationships take a slightly different form at the positions of the bearings. Whenever a value of Ω is determined by this system, a calculation of the actual deflected form of the shaft is made. The critical speeds of a large turbo-generator shaft about 29 m long, comprising

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The Calculation of Critical Speeds.... E035/E517

a 3-stage turbine and an alternator rotor, and supported on seven bearings, were computed on a "STRELA" (СТРЕЛА) computer. The shaft was considered to consist of 122 masses, and the finite difference equations were solved in a corresponding number of steps. The flow chart for the calculation is shown in Fig.3. In the range of speeds investigated, 0 to 3800 r.p.m., the shaft was found to have 5 critical speeds for vertical oscillation, and 6 for horizontal oscillation. One of the vertical critical speeds (2850 r.p.m.) was quite close to the running speed of the shaft (3000 r.p.m.). Two of the critical speeds, including this one, were mainly due to oscillation of the rotor, and not the turbines. A separate calculation involving only the rotor showed that its own critical speeds were little affected by the presence of the turbine. The entire calculation took only 10 to 15 minutes. There are 4 figures, 2 tables and 7 references: 5 Soviet and 2 non-Soviet.

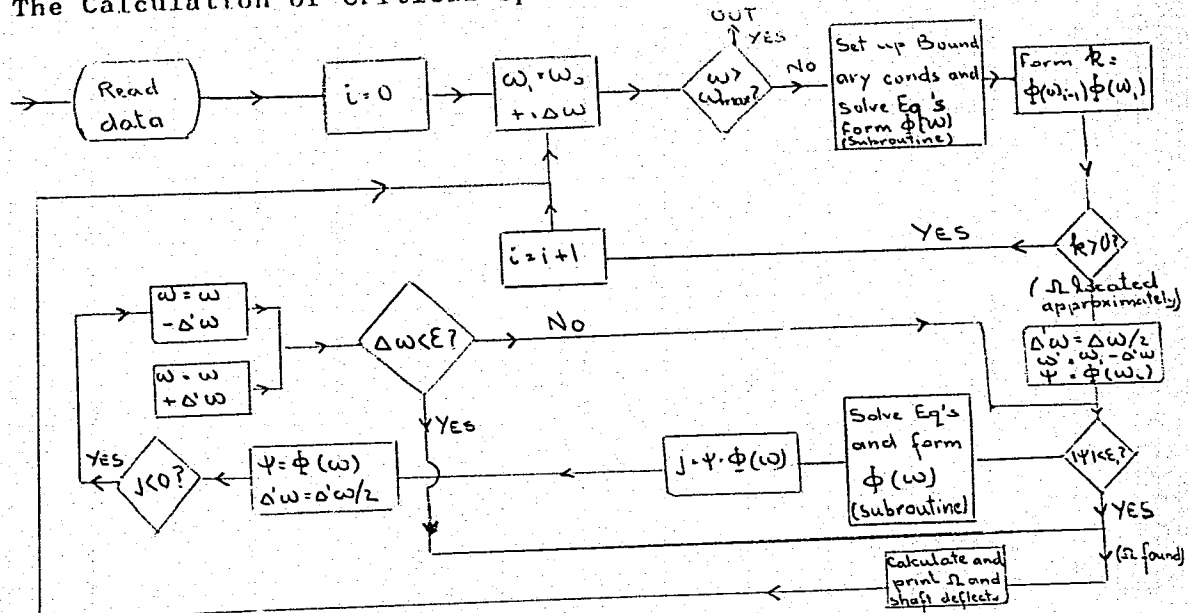
SUBMITTED: May 12, 1960

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The Calculation of Critical Speeds... E035/E517



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POLOZHIIY, Georgiy Nikolayevich; PAKHAREVA, Nadezhda Alekseyevna; STEPANENKO,
Ivan Zakharovich; BONDARENKO, Pavel Stepanovich; VELIKOIVANENKO,
Ivan Maksimovich; ROZENKNOP, V.D., red.; KRYUCHKOVA, V.N., tekhn.red.

[Mathematics] Matematicheskii praktikum. Pod red. G.N.Polozhego.
Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1960. 512 p.
(MIRA 14:1)

(Mathematics)

2181-48

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1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSUS AND PROPERTIES INDEX																																																			
An analysis of the work of the contact group in the Herreshof-Bayer system, from the viewpoint of the heat balance. Z. P. Rosenkhanov. <i>J. Chem. Ind. (Moscow)</i> 13, 693-8 (1967). H. M. Leicester																																																			
ASM S.L.A. METALLURGICAL LITERATURE CLASSIFICATION																																																			
13 693-8 (1967)																																																			

PROCESS AND PROPERTIES INDEX																									
1ST AND 2ND CATEGORIES													3RD AND 4TH CATEGORIES												
Washing and cooling gases containing sulfur dioxide. P. A. Afanas'ev and Z. P. Rozenknop. Russ. 50,801, April 30, 1937. The gases are washed with H_2SO_4, which is passed through the washing app. once and in such amt. that after the process it contains at least 65% H_2SO_4.																									
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																									
1ST AND 2ND CATEGORIES													3RD AND 4TH CATEGORIES												
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1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
Concentration of sulfur dioxide. Z. P. Rozenknop and I. N. Shokin. Russ. 51,042, Nov. 30, 1937. Gases contg. SO_2 are mixed with NH_3 generated by heating $(\text{NH}_4)_2\text{SO}_4$. The mixt. of SO_2 and NH_3 is washed with a soln. of $(\text{NH}_4)_2\text{SO}_4$ and NH_4HSO_4 and the concd. soln. of sulfites thus obtained is treated with NH_4HSO_4 formed in the generation of NH_3 from $(\text{NH}_4)_2\text{SO}_4$.																																																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																																																			
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A history of the development of isolation and production
of elementary sulfur in the U. S. S. R. Z. P. Rozenknop,
J. Chem. Ind. (U. S. S. R.) 14, 1474-7(1937).
H. M. Leicester

COMMON ELEMENTS

COMMON VARIABLE METALS

CEN MATERIALS INDEX

METALLURGICAL LITERATURE CLASSIFICATION

ALPHABETIC INDEX

1ST AND 2ND LETTERS

2ND AND 4TH ORDERS

F GROUPS

1ST AND 2ND LETTERS

2ND AND 4TH ORDERS

F GROUPS

1ST AND 2ND ORDER										3RD AND 4TH ORDER									
PROCESSES AND PROPERTIES INDEX																			
ca The development of sulfuric acid production in the U. S. S. R. in the last twenty years. Z. P. Rorenkoop. J. Chem. Ind. (U. S. S. R.) 14, 1478-87 (1937). H. M. L. 18																			
COMMON ELEMENTS										COMMON ELEMENTS									
OPEN										COMMON ELEMENTS									
METALLURGICAL LITERATURE CLASSIFICATION										E-Z									
1ST AND 2ND ORDER										3RD AND 4TH ORDER									
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1ST AND 2ND CODES

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH CODES

Tubular heat exchanger for the contact units of sulfuric acid plants. P. A. Afanas'ev and Z. P. Rozenkoop. Russ. 63,672, July 31, 1938. Construction details.

COMMON ELEMENTS

COMMON VARIABLES INDEX

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18
 Concentration of sulfur dioxide. Z. P. Rosenko.
 Nauch.-Issledovatel. Inst. Udobreniyam i Insektofungitsi-
 dam Ya. V. Samoilova (Moscow) 1919-1939, Pt. 5; Khim.
 Referat. Zhur. 1940, No. 8, 86; cf. C. A. 34, 30307.—A
 W. R. Henn
 review.

COMMON ELEMENTS										COMMON VARIABLE INDEX									
1ST AND 2ND ORDER										3RD AND 4TH ORDER									
PROCESS AND PROPERTIES INDEX																			
CA Aluminum oxide and potassium and sodium salts. Z. P. Rozenknop. U.S.S.R. 65,934, Feb. 28, 1946. A suspension of nepheline in H_2O having a solid-liquid ratio of 1:2 is satd. with SO_2. The suspension is dild. to a solid-liquid ratio of 1:4, and again the suspension is satd. with SO_2. The suspension is alternately dild. and satd. with SO_2 until the solid-liquid ratio is approx. 1:10. This method inhibits gelation; the filtrate is readily fil- tered. M. Hosh																			
ASR-SLA METALLURGICAL LITERATURE CLASSIFICATION										ALUMINUM INDEX									
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1ST AND 2ND ORDER										3RD AND 4TH ORDER									

1ST AND 2ND ORDER		PROCESS AND PROPERTIES INDEX		3RD AND 4TH ORDER	
CA		Concentrating sulfur dioxide, <i>see</i> E. Mozenkin, U.S.S.R. 66,494, June 30, 1946. Gases contg. only 1-1% of SO₂ are passed through an aq. suspension of nepheline. To prevent gelation, the suspension is constantly dild. to a solid:liquid ratio of 1:10. After the suspension is satd. at a low temp. it is filtered, and heated to boiling to drive out concd. SO₂. M. Hosh		18	
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION					
1ST AND 2ND ORDER		3RD AND 4TH ORDER		5TH AND 6TH ORDER	

ROZENKNOP, Z.P.

[Extraction of sulphur dioxide from gases] Izvlechanie dvyukisi sery
iz gazov. M, Goskhimizdat, 1952 [192 p.] (MLBA 8:4)
(Sulphur dioxide)

VASILENKO, N.A.; ROZENKNOP, Z.P.

Enrichment of sulfur dioxide with the simultaneous recovery of
nitrogen fertilizers. Zhur. prikl. khim. 33 no. 9: 1962-1968 5
'60. (MIRA 13:10)

(Sulfur dioxide) (Fertilizers and manures)

ROZENKNOP, Z.P.; SEDOV, N.V.

Part 1: Thermal dissociation of ammonium sulfate. Zhur. neorg.
khim. 2 no.11:2543-2552 N '57. (MIRA 11:3)
(Ammonium sulfate) (Thermochemistry)

ROZENKNOP, Z. P.

Distr: 4E4J

✓ Thermal dissociation of ammonium sulfate. I. Z. P.
 Rozenkron and N. V. Sedov. Zhur. Neorg. Khim. 2,
 2643-52 (1957). The partial pressure P of NH_3 over $(\text{NH}_4)_2\text{SO}_4$ at 255° was detd. by the dynamic method in a current of N_2 . The decrease of P with the amt. of $(\text{NH}_4)_2\text{SO}_4$ was attributed to the soly. of the latter in NH_4HSO_4 formed. From the exptl. $P = 1.38 \times 10^{-3}$ atm. at 255° over 100% $(\text{NH}_4)_2\text{SO}_4$, the following values of P at 300, 280, 265, 235, 225, and 205° were calcd.: 0.0669, 0.0293, 0.0149, 0.0034, 0.00306, and 0.00065 atm., resp. I. Bencowitz

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KHRUSHCHEV, N.S.; PODGORNYY, N.V.; ZASYAD'KO, A.F.; RUDAKOV, A.P.; KAZANETS, I.P.; SHILIN, A.A.; MEL'NIKOV, N.V.; BURMISTROV, A.A.; SHEVCHENKO, V.V.; MAYAKOV, L.I.; ROZENKO, P.A.; KUZ'MICH, A.S.; ZADEMIDKO, A.N.; BRATCHENKO, B.F.; STRUYEV, A.I.; KRASNIKOVSKIY, G.V.; BGYKO, A.A.; KAGAN, F.Ya.; USKOV, A.A.; VLADYCHENKO, I.M.; TOPCHIYEV, A.V.; DEGTYAREV, V.I.; KHUDOSOVTSSEV, N.M.; GRAFOV, L.Ye.; IVANOV, V.A.; KRATENKO, I.M.; GOLUB, A.D.; IVONIN, I.P.; SAVCHENKO, A.A.; ROZHCHENKO, Ye.N.; CHERNEGOV, A.S.; MARKELOV, M.N.; LALAYANTS, A.M.; GAPONENKO, F.T.; POLUEKTOV, I.A.; SKLYAR, D.S.; PONOMARENKO, N.F.; POTAPOV, A.I.; POLYAKOV, N.V.; SUBBOTIN, A.A.; POLSTYANOV, G.N.; TRUKHIN, P.M.; TKACHENKO, A.G.; OSTROVSKIY, S.B.; NYRTSEV, M.P.; DYADYK, I.I.; SHPAN'KO, T.P.; RUBCHENKO, V.P.

Kondrat Ivanovich Pochenkov; obituary. Sov. shakht. 11 no.9:
48 S '62. (MIRA 15:9)

(Pochenkov, Kondrat Ivanovich, 1905-1962)

ROZENKO, P.A.

Basic problems in developing coal mining in the Ukrainian
S.S.R. in 1959 - 1965. Ugol' Ukr. 2 no.10:1-5 0 '58.
(MIRA 12:1)

1. Zamestitel' predsedatelya Gosplana USSR.
(Ukraine---Coal mines and mining)

RADCHENKO, G.P.; ROZENKRANTS, A.A.

New data on Permian sediments in the northeastern Balkhash region.
Sov. geol. 3 no.4:111-115 Ap '60. (MIRA 13:11)

1. Vsesoyuznyy aerogeologicheskii trest i Vsesoyuznyy nauchno-
issledovatel'skiy geologicheskii institut.
(Balkhash region--Sediments (Geology))

Rozenkrants, A.A.

STAAL', M.B.; ROZENKRANTS, A.A.; KOVALEVA, V.V.

Stratigraphy of upper Carboniferous deposits in the northeastern
Balkhash region. Sov. geol. no.52:128-134 '56. (MLRA 10:4)
(Balkhash region--Geology, Stratigraphic)

ROZENKRANTS, A.S., kand. tekhn. nauk; FEDOROV, A.V., inzh.

Control system for a reversible two-phase asynchronous motor
with d.c. input signal. Elektrotehnika 36 no.8:29-30 Ag
'65. (MIRA 18:9)

ROZENKRANTS, A. S., Engineer

Cand Tech Sci

Dissertation: "Investigation of Certain Types of the Induction Regulators with
Additional Magnetization."

3/11/50

Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov.

SO Vecheryaya Moskva
Sum 71

Electrical Engineering Abst.
Vol. 57 No. 675
Mar. 1954
Electrical Engineering

839. Modelling of an a.c. electromagnetic apparatus by an electric circuit. A. S. ROZENKRANTZ. *Elektrichestvo*, 1953, No. 5, 61-74. In Russian.

The problem considered is as follows. Let the configuration and the parameters of the magnetic and electric circuits of an electromagnetic apparatus be known; to find, by the use of physically possible concentrated elements, an electric circuit one of whose parts is a model of the magnetic, and the other of the electric, circuits of the given apparatus. The geometry of electric and magnetic circuits and their analytical representation indicate the solution of the problem, beginning with the simple and important case of the "electromagnetic quadripole," for which direct and inverse equivalent circuits are found. The circuit modelling the electric part of the apparatus is correlated with the magnetic model circuit by transformers whose transformation ratios are determined by the numbers of turns of the corresponding windings of the apparatus. A general method is obtained for deriving the configuration of the modelling (or equivalent) circuit from the configurations of the modelled electric and magnetic circuits of the apparatus, the equivalent circuit having branches each of which corresponds to an individual branch of the original electric and magnetic circuits. Conditions for the possibility of modelling any given apparatus are also presented. The direct models may also be used for non-linear electromagnetic apparatus.

B. F. KRAUS

ROZENKRANTS, A.S., kand.tekhn.nauk, dotsent

Using the frequency response of capacitance in the calculation
and deterioration control of insulation. Izv. vys.ucheb.zav.;
energ. no.5:34-42 My '58. (MIRA 11:8)

1.Ivanovskiy energeticheskoy institut imeni V.I. Lenina.
(Electric insulators and insulation) (Electric capacitance)

Review Request: A.S.

119-4-9/25

AUTHORS: Rozenkrants, A.S., and Senitskaya, T.T., Candidates of Technical Sciences

TITLE: A Wattmeter Method for the Harmonic Analysis of Electrical Quantities (Vattmetrovyy metod garmonicheskogo analiza elektricheskikh velichin)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, ²⁹Na 4, pp. 28 - 30 (USSR).

ABSTRACT: A simple and reasonably accurate method of measuring harmonics of electrical quantities is proposed. Active power is the product of current and voltage of the same frequency. If either the voltage or the current is sinusoidal and the other is not, then the active power, when the frequency of the sinusoidal magnitude coincides with that of one of the harmonics of the un-sinusoidal quantities, does not depend on the values of these other harmonics. The proposed wattmeter method is based on this principle.

One winding of the wattmeter is connected to the non-sinusoidal magnitude, for example, current and the other to a purely sinusoidal one, for example, voltage. The expression for the power includes the cosine of the angle of lag of the current, which may be arbitrary. However, if the generator frequency is varied slightly to differ from the frequency of the measured harmonic

Card 1/2

110-4-9/25

A Wattmeter Method for the Harmonic Analysis of Electrical Quantities

by a fraction of a cycle, then the phase displacement changes slowly and the wattmeter needle swings. The swings are made so slow that inertia of the instrument can be neglected; from the maximum deflections the current can be determined. For the measurements to be accurate the meters must have a low frequency error. Electro-dynamic instruments can be used for frequencies of from tens to hundreds of c.p.s. Electronic or thermo-electric instruments should be used for higher frequencies. The method can also be employed in a convenient portable harmonic analyser consisting of a sinusoidal generator of smoothly-controlled frequency and appropriate types of voltmeter and wattmeter. The errors of such a system are evaluated. There is 1 figure.

ASSOCIATION: Ivanovo Power Institute (Ivanovskiy energeticheskii institut)
SUBMITTED: May 23, 1957
AVAILABLE: Library of Congress
Card 2/2

ROZENKRANTS, A.S., kand.tekhn.nauk, fots.

Automatic bridges and a.c. compensators. Izv.vys.ucheb.zav.; prib.
no.1:38-46 '59. (MIRA 12:11)

1. Ivanovskiy energeticheskoy institut imeni V.I. Lenina.
(Bridge circuits) (Electronic control)

8(2), 9(6)

AUTHOR:

TITLE:

PERIODICAL:

ABSTRACT:

Card 1/5

Card 2/5

Card 3/5

Anisimov, V. I., Engineer

SOV/119-59-3-13/5

The Inter-university Scientific Conference on Electrical Measuring Instruments and on the Technical Means of Automation (Mezhdunarodnyy nauchnyy konferentsiya po elektromernym priboram i tekhnicheskim sredstvam avtomatiki)

Priborostryeniye. 1959. Nr 3. pp 30-31 (USSR)

This Conference was held at the Leningradskiy elektrotekhnicheskiy institut im. V. I. Ul'yanova (Leningrad Institute of Electrical Engineering named V. I. Ul'yanov (Leningrad)) in November 1959. It was attended by more than 500 representatives of the USSR, scientific research institutes, of the OGB, the USSR Special Design Office, of industries and other organizations. More than 30 lectures were delivered in the meetings of this conference. In opening the conference M. P. Boroditskiy outlined the outstanding importance of automation and of measuring techniques for the development of national economy. M. S. Shumilovskiy in the lecture reported on "The Trends in the Development of Methods of Radiosensitive Control of Production Data" and outlined the extensive

possibilities of using radioactive methods in such control. Ye. G. Shramkov and S. A. Spektor reported on a new method of measuring heavy direct currents with the help of the nuclear magnetic resonance. M. A. Rosenblat investigated possibilities of the application of magnetic amplifiers in automatic control and in measuring techniques. A. V. Fateyev reported on the present-day state on the prospects of automatic control features of the Z. Taypin investigated some peculiar features of the Z. Taypin investigated automatic pulse systems. The lecture reported on the prospects of dealing with problems of stability of discrete automatic systems. V. B. Ushakov discussed the main trends of the development of mathematical analog computers and of computers designed for industrial use. The report by V. S. Ryabyshkin deals with an electronic analog correlator for the calculation of correlation functions in the investigation of winds in the ionosphere. B. I. Yurgenson reported on the most important methods, which guarantee both an active and passive freedom from disturbances in discrete selective systems. Ya. Y. Korovin discussed problems of averaging, differentiation, and balancing of time-dependent functions which can be represented by electric signals. V. P. Skuridin investigated new computing devices with polarized relays. A. V. Frense and Ye. M. Dushin reported on instrument transformers for automatic instruments with automatic recording. V. B. Ushakov and M. S. Kopya-Gers reported on a computer for the automatic centralized control of production specifications. N. M. Patizor discussed fundamental problems of the theory of automatic measuring instruments with an inverse conversion from the measurement of non-electric quantities. Ye. I. Fateyev dealt with the problems of the construction of automatic digital computers with high accuracy. D. I. Major discussed a high-precision automatic technique for digital computations. The participants in the Congress listed below discussed the following subjects (which, however, are not given by the exact wording of the titles): V. A. Ivantsov The planning of measuring elements for

PAGE - 2

The Inter-university Scientific Conference on
Electrical Measuring Instruments and on the Technical
Means of Automation

SOV/19-59-3-13/15

accurate automatic quotient-type meters in digital computations.
M. A. Kharchenko: Methods of determining the phase shift of a magnetic oscilloscope by simulation. P. P. Ornatkiy: Problems in measuring static quantities at extremely low frequencies by electronic means. V. A. Kuznetsov: Various types of automatic bridges. V. A. Kuznetsov: Koval type of a. c. compensators. V. A. Kuznetsov: Automatic bridges and a. c. compensators. V. A. Kuznetsov: Methods of determining the parameters of series production. L. I. Stolov: Some characteristics of magnetoelectric induction motors which can be used in measuring technique and automation. D. A. Borodavov: Ultrasonic pressure- and liquid level gauges. Yu. A. Skripnik: The circuitry of a phase-sensitive computation indicator for a. c. semi-equilibrium bridges. B. V. Suvirdi: The application of instruments with magnetic bridges, which permit a considerable simplification of the design of the apparatus and the circuitry used in the measurement of non-electric quantities. V. A. Permin: Method of increasing the sensitivity of oxygen gas analyzers. P. V. Yevitskiy:

Card 4/5

Design of apparatus for measuring vibration quantities.
V. V. Pasyukov: Main types of non-linear semiconductor resistors and possibilities of their application to circuitry in automation and measuring technique. G. N. Kozlovskiy: The circuitry of measuring amplifiers with semi-conductors. Ya. V. Korotkiy, N. A. Zaimov, V. A. Kuznetsov, Ya. P. Ugrumov: Precision semiconductor frequency meter operating according to the pulse-counting principle. P. G. Nikitin and A. Bezukladnikov: Methods of measuring the magnetic field strength by means of bleaith resistors and transducers operating on the Hall effect principle. A resolution was adopted by the closing plenary meeting of the Conference, which indicates ways of improving and coordinating scientific research work in the field of automation, electric measuring- and computing technique.

Card 5/5

ACC NR: AP6027915

SOURCE CODE: UR/0105/66/000/006/C052/0058

AUTHOR: Rozenkrants, A.S. (Candidate of technical sciences, Docent)

ORG: Ivanov Power Institute im. Lenin (Ivanovskiy energeticheskiy institut)

TITLE: Nonlinear electrical field in a radiation ionized dielectric

SOURCE: Elektrichestvo, no. 6, 1966, 52-58

TOPIC TAGS: dielectric property, Poisson equation, radiation simulation, boundary value problem

ABSTRACT: The paper deals with the reversible changes in electrical and nonelectrical parameters in instrumentation operating under the effect of ionizing radiation. The changes are observed during the period of radiation and depend on the intensity of the radiation dose. Special attention is directed to the effect of such radiation on the electrical field and on the parameters which depend directly on this field (conductance, capacitance, electrical strength, loss angle, etc.). The development and substantiation of theoretical principles for the analysis of these responses, using probabilistic and mathematical simulation techniques are discussed. It is shown that the analysis of an electrical field in an irradiated object (specifically, a gaseous dielectric) can be reduced to the solution of a Poisson equation boundary problem, with the volume charge distribution not known a priori, since this distribu-

Card 1/2

UDC: 537.212:539.1.04

L 40076-66 EWT(1)/T IJP(c)

ACC NR: AP6019201

(A)

SOURCE CODE: UR/0143/66/000/002/0019/0025

AUTHOR: Rozenkrants, A. S. (Candidate of technical sciences, Docent)

ORG: Ivanovo Energetics Institute imeni V. I. Lenin (Ivanovskiy energeticheskiy institut)

TITLE: Calculation of some transition processes of a nonlinear electric field in a gas ionized by radiation

SOURCE: IVUZ. Energetika, no. 2, 1966, 19-25

TOPIC TAGS: ionized gas, similarity theory, ionizing radiation

ABSTRACT: Similarity methods are applied to the solution of a problem describing nonlinear discharge processes arising due to space charge in gases ionized by radiation. The rate equations for singly ionized species are written for parallel plate geometry and applied to those problems where ionic diffusion can be neglected; both constant and varying applied potentials are treated. The rate equations are rewritten in dimensionless form and solved numerically. The form of equation and selection of proper dimensionless parameters lead to a solution for a large range of parameters with a manageable number of computations. Selected results are given to illustrate the behavior of current density, ion and electron concentrations and potential distributions. The analytic method described here is useful for predicting actual behavior of discharges

Card 1/2

UDC: 537.218.00.24

ROZENKRANTS, A.S., kand. tekhn. nauk, dotsent

Similitude criteria of a nonlinear electric field in a media
ionized by irradiation. Izv. vys. ucheb. zav.; energ. 8 no.6:
23-27 J. '65. (MIRA 18:7)

1. Ivanovskiy energeticheskiy institut imeni Lenina. Predstavlena
kafedroy teoreticheskikh osnov elektrotekhniki.

L 3002-66 ENT(d)

ACCESSION NR: AP5020032

UR/0292/65/000/008/0029/0130
621.316.72/77

35
B

AUTHOR: Rozenkrants, A. S. (Candidato of technical sciences); Fedorov, A. V.
(Engineer)

TITLE: Control circuit for a reversible 2-phase induction motor with a d-c input signal

SOURCE: Elektrotehnika, no. 8, 1965, 29-30

TOPIC TAGS: servomotor

ABSTRACT: The development of a transistorized circuit for reversible control of a small (RD-09) 2-phase servomotor is reported. The motor control winding is supplied from a transformer whose primary is fed by pulses from a push-pull P201-transistor circuit. The push-pull transistors are controlled by a pair of smaller transistors to which d-c voltage signals are applied. The motor is reversed by reversing the d-c voltage polarity. Testing of laboratory model revealed a practically sinusoidal voltage on the motor control winding, a low inertia of the circuit, and a high (about 40,000) power gain. Also a possibility of eliminating the rectifier smoothing filter and using full-wave-rectified pulses in the push-pull circuit was explored. Orig. art. has: 4 figures and 10 formulas.

Card 1/2

L 3002-66

ACCESSION NR: AP5020032

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: EC, IE

NO REF SOV: 003

OTHER: 000

Card 2/2 *md*

L 63877-65 EWT(m) DIAAP

ACCESSION NR: AP5015782

UR/0143/65/000/006/0023/0027

537.218

AUTHOR: Rozenkrants, A. S. (Candidate of technical sciences, Docent)

TITLE: Similitude criteria of a nonlinear electric field in a radiation-ionized medium

SOURCE: IVUZ. Energetika, no. 6, 1965, 23-27

TOPIC TAGS: ionized medium, radiation ionized medium, electric field, nonlinear electric field

ABSTRACT: Five similitude criteria are derived from a system of nonlinear partial differential equations describing the phenomena of ionization, recombination, drift, and diffusion of particles in a gas subjected to a radiation ionization; far-from-breakdown conditions are considered. The similitude criteria describe the main course of events, relative recombination, and relative diffusion (often neglected). With a proper allowance for the boundary condition specific for a given problem, the use of the above similitude criteria is claimed to reduce digital or analog computer work by several hundred times. Orig. art. has: 28 formulas.

Card 1/2

ROZENKRANTS, A.S., kand.tekhn.nauk, dotsent

Contribution to the theory of an RC oscillator for deriving voltages
with constant phase shift over a wide frequency range. Izv. vys.
ucheb. zav.; energ. 6 no.3:35-41 Mr '63. (MIRA 16:5)

1. Ivanovskiy energeticheskiy institut imeni V.I.Lenina.
Predstavlena kafedroy teoreticheskikh osnov elektrotehniki.
(Oscillators, Electron-tube)

YUZ'KO, S., kand. tekhn. nauk; ROZENKRANTS, I., kand. tekhn. nauk;
MAMONTOVA, O., kand. khim. nauk; PATLYAKEVICH, D., inzh.;
KISLITSIN, S.; KISLITSIN, Ye.; BUKHARSKIY, G.; RYZHKOV, F.,
izobretatel'; SOLOVSKIY, B., inzh.-mekhanik

Helping crops. NTO 6 no.6:9-12 Je '64. (MIRA 17:8)

1. Uchenyy sekretar' soveta Nauchno-tekhnicheskikh obshchestv
Ul'yanovskogo oblastnogo ob'yedineniya "Sel'khoz tekhnika"
(for Bukharskiy).

15

Combining the production in the furnace of a highly calorific gas and phosphoric acid for the Ural fertilizer industry. I. S. Rosenkrantz. *J. Chem. Ind. (Moscow)* 12, 685-9 (1935).

H. M. Leicester

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<i>ca</i> Fuel gas and phosphoric acid. I. S. Rozenkrants and M. O. Dembo. Russ. 51,114, May 31, 1937. Gas of high heating value is obtained from blast furnaces used for the distn. of P from phosphorites with steam-O blast. <i>18</i>																			
ASR-11A METALLURGICAL LITERATURE CLASSIFICATION																			
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PROCESSES AND PROPERTIES INDEX																																																			
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A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ
Complex gasification of fuels and phosphorite in a blast furnace using an air blast enriched with oxygen. I. I. S. Rozenkrants and M. O. Dembo. <i>J. Chem. Ind. (U.S.S.R.)</i> 14:1383-7(1937).—The advantages of combining fuel gasification with phosphorite decompn. are pointed out. II. Oxidation of phosphorus and phosphine by nitric acid by the method of Rozenkrants and Dembo. <i>Ibid.</i> 1381-6.—The fuel gases in this process contain P_4 and PH_3. These can best be removed by scrubbing the gas at 60-70° with 42% HNO_3. A cloud of H_3PO_4 is formed rapidly and absorbed somewhat more slowly by the HNO_3. CO and H_2 are not affected. H. M. L.																																																			
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION																																																			
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COMMON ELEMENTS																										PROCESS AND PROPERTIES INDEX																									
LIST AND NO. OF ELEMENTS																										LIST AND NO. OF PROPERTIES																									
20 Complex gasification of fuels and phosphate in a blast furnace. III. Material balance for the process of oxidizing phosphorus and phosphine by nitric acid. I. S. Rozganskii and M. O. Dembo. <i>J. Chem. Ind. (U. S. S. R.)</i> 14, 1620-32 (1937); cf. preceding abstr. The exact amounts of reagents required in each step are reported. The oxidation of PH_3 is due chiefly to O_2 in the air rather than to the HNO_3. The acid catalyzes the reaction. IV. Nitric oxide in the gas after oxidation of phosphorus and phosphine by nitric acid. <i>Ibid.</i> 1618-22. When PH_3 is oxidized by HNO_3 in the absence of O_2, the gas from the reaction contains NO which is increased in amt. as the PH_3 concn. rises. If air is present, most of the NO is oxidized to NO_2. At 60-70°, even less NO is found and the gas is better than coke gas for NH_3 synthesis. V. The purification of the gas produced in electrodistillation of phosphorus from phosphorus and phosphine by nitric acid. <i>Ibid.</i> 1704-7. This gas, which is similar in compn. to that from the blast furnace, can be entirely freed from P and PH_3 by treatment with HNO_3. Not enough O_2 is required in the app. to form an explosive mixt. H. M. L.																										21																									

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
18 Oxidation of phosphorus vapor and phosphine by oxygen in the presence of nitric acid. I. S. Rozenkrants. <i>Bull. akad. sci. U. R. S. S., Classe sci. math. nat., Ser. chim.</i> 1938, No. 1, 75-98 (in English 98-0).—The blast-furnace production of gas of high calorific value yielded a gas which contained P_2 and PH_3. The latter components can be removed by various reagents. The oxidation of P_2 and PH_3 by free O in the gas in the presence of HNO_3 proceeded quantitatively without affecting the heat-producing components (CO and H_2) of the gas. The velocity of oxidation increased with increase of temp. and concn. of HNO_3, and it is limited by the absorption of the fog formed, which consisted of the products of P oxidation. The gas, fired from PH_3 and P_2, contained N oxides, which can be removed by alkali. The amt. of NO in the gas decreased with increase of temp. of HNO_3. Washed gas contained about 12% of NO and can be utilized as a fuel or for the prepn. of H_2. The HNO_3 consumption was not great, because it acted as a catalyst. After the process, the used nitric acid contained HNO_3, H_3PO_4, H_2PO_4, H_2PO_3 and traces of HNO_2. The lower stages of oxidation of P are quantitatively oxidized to H_3PO_4 in the presence of 50-55% of HNO_3, which should contain some N oxides, at 190-200°C. A. A. Polgorny																																																			
ASB-51A METALLURGICAL LITERATURE CLASSIFICATION 1ST AND 2ND ORDERS 3RD AND 4TH ORDERS																																																			

CA

18

The oxidation of phosphorous and hypophosphorous acids by nitric acid. VI. I. S. Rosenkrantz. *J. Chem. Ind. (U. S. S. R.)* 15, No. 17, 30-3 (1938); cf. C. A. 32, 10839. —The chief product of the oxidation of P and PH₃ by HNO₃ is a mixt. consisting of H₃PO₄, 30.4, H₂PO₃, 45 and H₂PO₂, 24.6%. When this mixt. is treated with 55% HNO₃ at 90-8° for 45 min., it is completely oxidized to H₃PO₄, providing the HNO₃ contains NO and NO₂. No N₂ or N₂O forms in this reaction. H. M. Leicester

ALU-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
Phosphine. I. S. Rozenkrants and M. O. Dembo. Russ. 54,304, Jan. 31, 1939. A mixt. of $\text{Ca}_3(\text{PO}_4)_2$ (phosphorite, apatite, etc.) coal and sand is heated in a blast-type furnace in the presence of steam and O_2.																			
ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION																			

18

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
CA Combined manufacture of yellow phosphorus and power gas. I. S. Rozenkrantz. Russ. 55,008 Oct., 31, 1939. Phosphorites are reduced in a blast furnace operated with oxygen and peat coke. The peat coke is obtained by low-temp. carbonization of peat in a current of gas composed of blast-furnace gas freed in a known manner of P vapors and low-temp.-carbonization gas freed of tar vapors and preheated in heat recuperators.																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION										COMMON VARIANTS INDEX									
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
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1ST AND 2ND GROUPS										3RD AND 4TH GROUPS									
PROCESSES AND PROPERTIES INDEX																			
CA Combined manufacture of yellow phosphorus and power gas. I. S. Rozenkrants. Russ. 36,016, Nov. 30, 1939. Addn. to Russ. 55,908 (preceding abstr.). The low-temp. carbonization of peat is carried out with an admixt. of phosphorites.																			
18																			
COMMON ELEMENTS COMMON VARIANTS INDEX																			
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1ST AND 2ND ORDER										3RD AND 4TH ORDER									
PROCESSES AND PROPERTIES INDEX																			
<i>CA</i> 18 Oxidation of P and PH. I. S. Rozenkrants. Russ. 50,171, Dec. 31, 1939. Gases contg. "P" and "PH", are treated with H_2PO_4 and simultaneously subjected to oxidation with an anode located in the outer part of the scrubber or bubble tower.																			
ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION																			
MATERIALS INDEX										E-277-100-1000									
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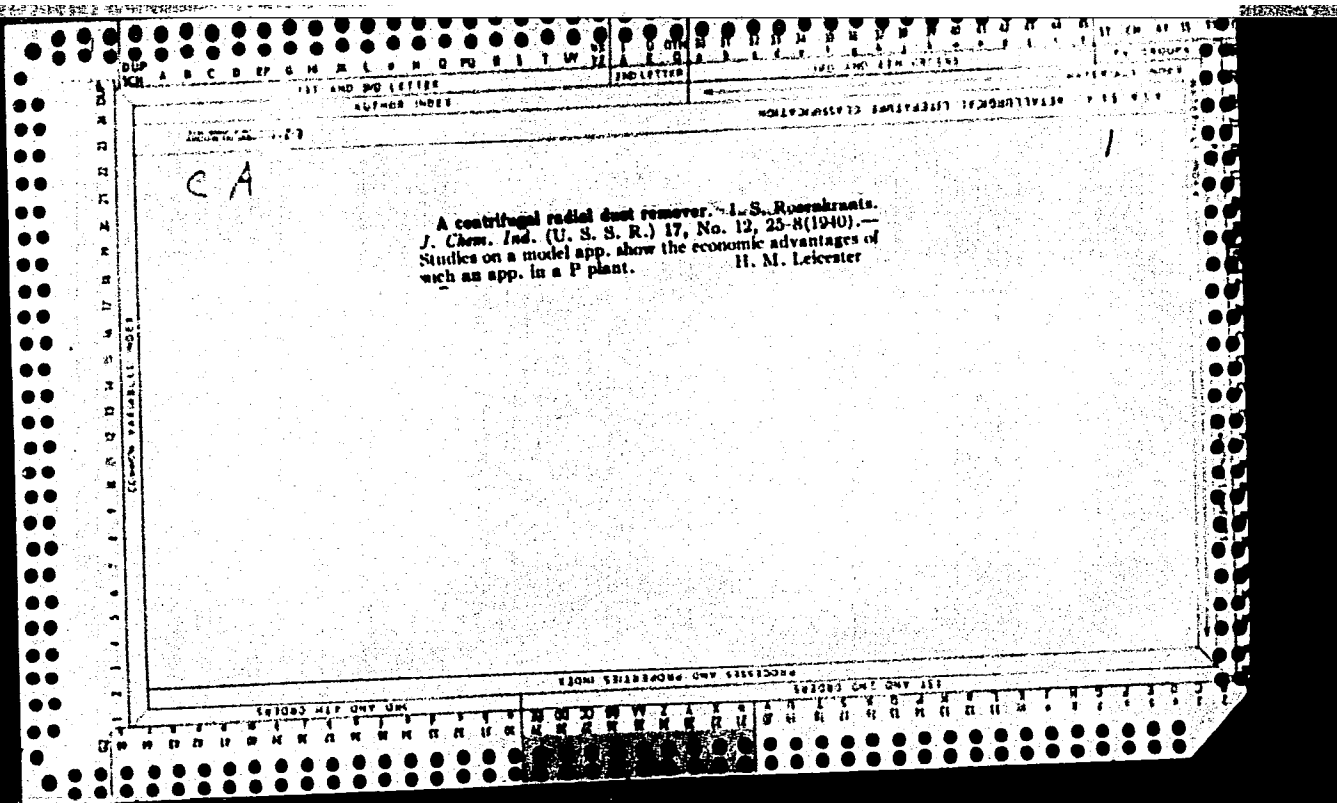
ROZENKRANTS, I. S.

"H₃AsO₄ and H," I. S. Rozenkrants, Russ Pat/ 58,371 30 Nov 1940
(SEE: Inst. Insect/Fungi. in Ya. V. Samoylov)

SO: U-237/49, 3 April 1949

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
CA										Purifying gases obtained in the sublimation of phosphorus. L. S. Rosenkrantz. Russ. 54,678, Dec. 31, 1940. The gases freed of elementary P in the usual manner are washed with a soln. of H_2PO_3 contg. O_2, in order to oxidize the PH_3.																																									
ASB. S. L. A. METALLURGICAL LITERATURE CLASSIFICATION																																																			
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CA 18 The purification of food and reagent phosphoric acid containing hydrogen sulfide. L. S. Rozukhtants. <i>J. Chem. Ind. (U. S. S. R.)</i> 17, No. 6, 635 (1940). After pptn. of the As in H_2S, by addn. of H_2S, the latter can be removed by adding just enough $NaNO_3$ to convert the H_2S to S. Filtration through activated C removes both As and S. If Na in the acid is undesirable, N_2O_5 can be used for the purification. H. M. Leicester																													
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1st AND 2nd ORDERS																													



ROZENKRANTS, I. S.

"Purifying Gases Obtained in the Sublimation of Phosphorus," I. S.
Rozenkrants, Russ Pat 58,678, 31 Dec, 1941 (SEE: Inst. Insect/Fungi
in Ya. V. Samoylov)

SO: U-237/49, 8 April 1949

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
CA										18									
Catalytic oxidation of phosphorus and phosphine. I. S. Rozenkrants. <i>Khimicheskaya Prom.</i> 1944, No. 10/ 11, 32-3. The problem was to remove P and PH₃ from gases generated when P is sublimed in elec. furnaces. This was accomplished by dilg. the gas with N, adding O 1.5-2 times that required to oxidize P and PH₃, and heating the mixt. to 360-400°. Only at this temp. did oxidation take place. This procedure is hazardous, since explosion is likely to occur. Also CO and H₂ in the original gas are oxidized and the purified gas loses calorific value. The addn. of NO and NO₂ to the gaseous mixt. caused the reaction to proceed at a rapid rate at room temp. It eliminated the danger of explosion and left the CO and H₂ intact. To remove the P oxide fumes, the gas after the reaction was washed in H₂O and in an alk. scrubber. The purified gas was practically free of P and PH₃. To gases contg. 0.15-0.3 vol. % of P and PH₃ should be added 0.6-0.8% of NO and NO₂. N oxide content in the purified gas should be 1.3-1.46%. M. Hosh																			
ASH-STA METALLURGICAL LITERATURE CLASSIFICATION																			
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									

ROZENKRANTS, I.S., kandidat tekhnicheskikh nauk

Use of centrifugal pneumatic vertical-type grinders for pulverizing
arsenic-containing insecticides. Khim.prom.no.1:23-24 Ja'47.
(Insecticides) (Milling machinery) (MLRA 8:12)

ROZENKRANTS, I.S.

The nitric acid method of obtaining concentrated arsenic acid as
a basis for the production of arsenic pentoxide and calcium
arsenate. [Trudy] NIUDF no.167:73-109 '60. (MIRA 13:8)
(Arsenic oxides)
(Calcium arsenates)
(Insecticides)

ROZENKRANTS, I.S.

Semidry method of producing Paris green. [Trudy] NIUIF no.167:118-
132 '60. (MIRA 13:8)

(Paris green)

L 44586-66 EWT(m)/EWP(j) IJP(c) RM
ACC NR: AP6015667 (A) SOURCE CODE: UR/0413/66/000/009/0075/0075 13
INVENTOR: Rozenkrants, Kh. G. ; Anlauf, R. ; Pel' mann, A. B
ORG: none
TITLE: Preparation of ketone-formaldehyde resins modified with rubber. Class 39, 15
No. 181288 ✓
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 75
TOPIC TAGS: formaldehyde resin, ketone formaldehyde resin, resin
ABSTRACT: This Author Certificate introduces a method of preparing ketone-formaldehyde resins modified with rubber by condensation of methylcyclohexanone with synthetic butadiene or butadine styrene rubber in the presence of a catalyst. To obtain products of high hardness, good solubility, and compatibility with various
Card 1/2 UDC: 678.683.2' 31' 21:678.762.2-9

L 44586-66

ACC NR: AP6015667

film-forming substances, the polymerization is carried out in aliphatic hydrocarbons in the presence of a water-alcohol solution of an alkaline catalyst. [Translation]
[LD]

SUB CODE: 11/ SUBM DATE: 28May62/

Card 2/2

Lgm

NEUSYKHIN, B.M., arkhitekt; ROZENKRANTS, Yu.F., inzh.

Constructing roofs for spinning shops of synthetic-fibre
factories without skylights. Stroi.prom. 27 no.2:22-23
F '49. (MIRA 13:2)

1. Gosudarstvennyy proyektnyy institut stroitel'noy promy-
shlennosti.
(Skylights) (Textile factories)

PETRIK, Milos, inz. CSc.; ROZENKRANZ, Jaromir, inz.

The UTAM-S7 string frequency meter. Stav cas 12 no.9:583 '64.

CLASSIFIED BY: 11/0000/00/000/000/0216/0276

AUTHOR: Yakovlev, B. P. (Engineer); Prokhorov, N. N. (Doctor of technical sciences);
Kozlovskiy, V. A. (Engineer)

ORG: none

TITLE: The effect of the rate of deformation on the mechanical properties of the
zone of steel 1Kh13N9T near the seam

SOURCE: Moscow. Vyssheye tekhnicheskoye uchilishche. Prochnost' svarnykh konstruktsey
(Strength of welded structures). Moscow, Izd-vo Mashinostroyeniye, 1966, 216-226

TOPIC TAGS: welding, metal deformation, welding technology, weld effect, weld
evaluation, steel/ 1Kh13N9T steel

ABSTRACT: Experimental work was performed for the purpose of duplicating brittle
failures in austenite steels at high temperatures. The experiments were aimed at
finding methods for qualitative analysis of the tendencies of alloys toward localized
failure. Specifically sought was the reaction of the process of failure on the
variation of the rate of deformation in a wide range and with temperatures ranging
from 500--650C. A description of the experimental methods, specimens and sizes, etc,
is given. Plotted experimental data include: the variation of the strength limit and
absolute elongation with various tensile strain and for various material and
temperature combinations; variation of the strength limit of nonuniform specimens

Card 1/2

ACC NR: AT6030945

exposed to different types of welding. Photographs of fractured specimens are shown. The authors note that at relatively high rates of deformation the entire section in the macroscale undergoes a failure. At low rates of deformation the failure of the specimen was more localized and was manifested as cracks propagating at low strength and plasticity. The effect of preheating is minor with higher rates of deformation, but is increasingly important with reduced rates of deformation. Various effects of the type of welding are discussed. Orig. art. has: 9 figures.

SUB CODE: 11, 13/ SUBM DATE: 11Mar66/ ORIG REF: 003/ OTH REF: 001

Card 2/2

ROZENKRANT S, Yu.F.

Neusykhin, B.M. and Rozenkrants, Yu.F. "Lightless roofing of spinning shops in artificial-fiber plants", Stroit. prom-st', 1949, No. 2, p. 22-23.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 9, 1949)

ROZENKVIT, Sh. Ye.

Rozenkvit, Sh. Ye.

"Investigation of the design parameters of hydroplastic attachments."
Min Higher Education USSR. Kazan' Aviation Inst. Kazen', 1956.
(Dissertation for the Degree of Candidate in Technical Sciences).

Knizhnaya letopis'
No. 21, 1956. Moscow.

ROZENMAL, M., 2d

Kratkiy Filosofskiy Slovar' (Short Philosophical Dictionary) Pod Red. M.
Rozenmala u P. Yudin. Izd. 4 Dopol i Isprav. Moskva, Gos. izd-vo Politicheskoy
Lit., 1954.
703 p.

SO: N/5
912.101
.R8
1954

USOV, V.; ROZENMAN, A., red. angliyskogo teksta; KHODINOVA, V.,
tekh. red.

[Yaroslavl; views of the city and its environs] I Aroslavl';
vidy goroda i okrestnostei. I Aroslavl', I Aroslavskoe knizh-
noe izd-vo, 1962. 1 v. (MIRA 15:11)
(Yaroslavl--Views)

ROZENMAN, A. S.

Trukhanov, A. A., Shershov, S. F., Rozenman, A. S. Kheyster, I. M., Gluzunov, A. A., and Gludinskiy, P. G. Participated in a discussion on the "Waste of Metal and Decreasing the Power Losses in the Electrification System of the USSR" Moscow Power Engineering Institute imeni Molotov (MPEI), SO: Elektrichestvo, No. 5, 1947; (W-27801, 14 Sept. 1953)

ROZENMAN, B.M., kand.med.nauk

Electrocardiographic observations of patients with typhoid fever during treatment. Zdrav.Belor. 6 no.2:34-37 P '60. (MIRA 13:6)

1. Kafedra infektsionnykh bolezney (zaveduyushchiy - dotsent N.V. Bondareva) Belorusskogo instituta usovershenstvovaniya vrachey.

(TYPHOID FEVER)

(ELECTROCARDIOGRAPHY)

LIVSHITS, B.Ya.; ROZENMAN, E.S.; KIBERNIK, K.V.; SOKOLOV, V.F.

Regulator of the feed of the ammonia sulfate pulp to the centrifuge.
Koks i khim. no.7:55-56 '65. (MIRA 18:8)

1. Zaporozhskiy filial Instituta avtomatiki (for Livshits, Rozenman,
Kibernik). 2. Zaporozhskiy koksokhimicheskiy zavod (for Sokolov).

DROZDOV, R.Ya.; SOSEDOV, V.P.; ROZENMAN, I.M.

Changes in the linear dimensions of carbon materials in the
process of graphitization. TSvet.met. 38 no.1:66-69 Ja '65
(MIRA 18:2)

CHALYKH, Ye.F.; ROZENMAN, I.M.

Kinetics of the oxidation of green pitch-coke specimens made
by cold pressing. TSvet. met. 37 no.6:44-47 Je '64.
(MIRA 17:9)

ROZENMAN, L.A.; BERESNEVA, Ye.I.

Result of comparative study of anti-diphtheria serums. Sovet. med.
16 no.3:18-22 Mar 1952. (GIML 22:1)

1. Candidate Medical Sciences for Rozenman. 2. Of the Infectious
Division (Head -- Doctor Medical Sciences M. Ye. Sukhareva) of the
Department of Pediatrics, Central Institute for the Advanced Training
of Physicians (Head of Department -- Prof. G. N. Speranskiy, Active
Member AMS USSR).

ROZENMAN L.A.

Antibiotics in the fight against diphtheria bacilli carriers (Russian text) PEDIATRIJA
1953, 6 (65-71) Tables 2
Pyocyanin, gramicidin, penicillin and sanasin were said to be the most effective.
Sanasin, a chemotherapeutic agent isolated from the blue pigment of *Ps. aeruginosa*
was used in dilution 1:250 for swabbing of the throat and in 1:1000 for inhalation.
Penicillin solution was applied with novocain in 9 ml. distilled water containing
50,000 U. of penicillin with addition of 1.0 ml. of 1% novocain. A total of 114
diphtheria carriers were treated topically with sanasin or penicillin or with both
antibiotics. As compared with untreated controls the treated group showed no
significant differences in the carrier stage. Anigstein = Galveston (XX, 4,6,7)

SO: Excerpta Medica
Section IV
Vol. 7 No. 12

ROZENMAN, L.M.

25(2,5) PHASE I BOOK EXPLOITATION SOV/2085
Tsentr'nyy nauchno-issledovatel'skiy institut tekhnologii i
mashinostroyeniya

Povysheniye prochnosti elementov konstruktiv i detalей машин
(Increasing the Strength of Constructional and Machine Elements)
Moscow, Mashgiz, 1959. 210 p. (Series: Ita: Sbornik/ kn. 91)
3,500 copies printed.

Ed. (Title page): I. V. Kudryavtsev, Doctor of Technical Sciences.
Prof. Ed. (Inside book): A. G. Yiklin, Engineer; Tech.
Ed.: V. D. El'kind, Managing Ed. for Literature and Transport
Machine Building (Mashgiz); K. A. Pomarev, Engineer.

PURPOSE: This collection of articles is intended for designers,
process engineers, and scientific research workers in the
machine-building industry.

COVERAGE: The collection contains papers dealing with experimental
work done recently by TANTIMASH. The experiments are concerned
with the practical use of surface work hardening in industry.
Industrial practices intended to increase the strength and
service life of machine parts and constructional elements are
discussed. Several articles are devoted to problems of in-
creasing the fatigue strength of machine parts by work hardening.
Industrial practices of HRC in crankshafts in aircraft engines
and of large machine parts are presented. The simultaneous
use of surface work hardening are described. No personalities
are mentioned. References follow each article.

Kudryavtsev, I. V., T. V. Naumova, and L. M. Rozenman
Engineers. Effect of Work Hardening on the Strength of
Carbon Steels 129

Changes in hardness, ductility, yield, ultimate stress,
impact toughness, and fatigue limit of carbon steels due
to work hardening are investigated. Results are presented
in tables and diagrams.

Kudryavtsev, I. V., and T. V. Naumova. Effect of Large
Plastic Deformations on the Strength Properties of Austenitic
Steels 159

The investigation described in this article was con-
ducted in order to establish the effect of extensive
strain hardening on the fatigue resistance of heat-
resistant steels. In addition to fatigue tests, short-
time tensile, compression, impact, and hardness tests were
taken. Elevated tests were taken at room temperature (200C)
and elevated temperatures (500C). The effect of heat
treatment on strain-hardened steels and the simultaneous
effect of strain hardening and artificial aging were in-
vestigated.

Aleksandrov, B. I. Candidate of Technical Sciences. Fatigue
Resistance of E172 Pearlitic Steel at High Temperatures 174

The method of investigation and preparation of samples are
described. The influence of temperature and external
burnishing with rollers on the sensitivity to stress con-
centration, and the changes in microstructure due to cyclic

Card 8/16 (see p. 174) Doctor of Technical Sciences, Professor
Gulyaev, V. P. Microscopic Investigation of Plastic Deformation 188

This article describes an experimental investigation of
plastic deformation with the use of the optical micro-
scope. A titanium model of the microsection was then
studied in an electron microscope. Plastic flow, changes
in grain shape, and generation of cracks are discussed.

IV. MODERN STRENGTH-TESTING EQUIPMENT
Yarkovitch, S. I. Candidate of Technical Sciences, and
P. G. Yarkovitch, Engineer. Model U-200 Machine for
Fatigue Testing Shafts With up to 200-Millimeter Diameters 201

This machine, designed and built by TANTIMASH, requires
only 16 kw. for fatigue testing 200-millimeter shafts. It
employs the principle of resonance for loading. Other
design considerations and operating techniques are discussed.

ROZENMAN, L. M.

129-3-1/14

AUTHORS: Kudryavtsev, I. V., Doctor of Technical Sciences, Prof.,
Naumova, T. V., Eng. and Rozenman, L. M. Tekhn.

TITLE: Influence of work hardening on the mechanical properties
of carbon steels. (Vliyaniye naklepa na mekhanicheskiye
svoystva uglerodistykh staley).

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, No.3, pp.2-6
(USSR).

ABSTRACT: The authors considered it of interest to study the
influence of work hardening on the strength characteristics
of steel, namely, hardness, impact strength, fatigue
limit as well as the behaviour during static tension.
The investigations were effected on the most widely used
structural materials, namely, hot rolled carbon steel "45"
and steel "3". For obtaining large degrees of work
hardening, the method of torsion was selected, using
cylindrical specimens of 19 and 22 mm dia. The maximum
deformations were so chosen that there should be no
cracks at the surface of the specimen, i.e. the relative
elongation of the external fibres, ϵ , equalled 120 and
65% respectively. The results of the influence of the
degree of deformation on the hardness are graphed in
Fig.1, p.3. The influence of annealing for one hour at

Card 1/3

129-3-1/14

Influence of work hardening on the mechanical properties of carbon steels.

300, 600 and 800°C after maximum deformation on the hardness is graphed in Fig.2; Fig.3 gives the influence of the degree of deformation on the mechanical properties of the steel, whilst Fig.4 gives the influence of the testing temperature on the impact strength for degrees of freedom of 0, 20, 65, 80 and 120%. Fig.5 gives the change of the impact strength of steel as a function of the tempering temperature after work hardening with a maximum degree of deformation. It is concluded that large plastic deformations, which are equivalent to elongation in tension of 65 and 120%, bring about an appreciable increase in the hardness, yield point and ultimate strength of carbon steels. Simultaneously, the values of the relative elongation and contraction decrease. However, the decrease of the relative contraction of the cross section is only a slight one. Plastic deformation reduces the impact strength of both the tested steels for all the investigated temperatures (up to 600°C). The fatigue strength of the investigated steels, determined on smooth specimens, increases with increasing degree of work hardening; no increase in the fatigue strength was observed in the case of notched specimens.

Card 2/3

129-3-1/14

Influence of work hardening on the mechanical properties of carbon steels.

Annealing of the steel at 300°C after the work hardening leads to a further increase in the hardness of the metal and to a decrease of the impact strength, whilst annealing at 600°C causes a reduction in these values. Annealing of work hardened steel at 800°C eliminates completely the changes in the mechanical properties caused by plastic deformations. There are five figures and one table.

ASSOCIATION: TsNIITMASH.

AVAILABLE: Library of Congress.

Card 3/3

KUDRYAVTSEV, I.V., doktor tekhnicheskikh nauk, professor; ROZENMAN, L.M.,
inzhener.

Removal of residual stresses during axial loading of surface-peened
cores. Metalloved.i obr.met. no.7:7-13 J1 '57. (MIRA 10:8)

1.TSentral'nyy nauchno-issledovatel'skiy institut tekhnologii i
mashinostroyeniya.

(Metals--Testing)

ROZD. 643, I. A.
N. N. OSLOV, Ukrain Khim Zhur, 1934, 9, 221-261

1. ROZENMAL' D., SHAROVA L.

2. USSR (690)

4. Velilopol'skaia, N.

7. Textbooks of the Spanish language for grades 3-5. Inostr. iaz. v shkole no.1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

AFANAS'YEV, O.O. [Afanas'iev, O.O.]; GORVITS, S.M. [Horvits, S.M.];
IGNATOVA, L.P. [Ihnatova, L.P.]; KOTOV, M.P.; NOVIK, G.B.
[Novyk, H.B.]; ORLOV, I.V.; PEYSAKHZON, L.B.; ROZENMAN, G.S.
[Rozenman, H.S.]; SKATERNY, V.A.; TSITRIN, L.I.; CHECHENEV,
M.I. [Checheniev, M.I.]; SHOSTAK, S.I.; NAZARENKO, N., red.;
GORKAVENKO, L. [Horkavenko, L.], tekhn.red.

[Light industry of the Ukraine] Lehka promyslovist' Ukrainy.
Kyiv, Derzh.vyd-vo tekhn.lit-ry URSR, 1960. 197 p.

(MIRA 14:4)

(Ukraine--Industries)

CHIZHEVSKIY, A.I. [Chyzheva'lyi, A.I.]; ROZHENMAN, G.S. [Rosenman, H.S.]

Analysis of losses in yarn dyeing. Leh. prom. no.4:72-75 O-D '65.
(MIRA 19:1)

CHUVALOVA, M.T.; ROZENMAN, L.A.

Antibiotics in control of bacteria carrying in diphtheria. *Pediatrics*
no.6:65-71 N-D '53. (MLRA 7:1)

1. Iz infektsionnogo otdeleniya kafedry pediatrii (zaveduyushchiy kafedroy - deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR professor G.N.Speranskiy, zaveduyushchiy otdeleniyem - doktor meditsinskikh nauk M.Ye.Sukhareva) Tsentral'nogo instituta usovershenstvovaniya vrachey i laboratorii Klinicheskoy ordena Lenina bol'nitsy im. S.P.Botkina (zaveduyushchiy laboratoriyey - doktor meditsinskikh nauk Ye.A.Kost).

(Antibiotics) (Diphtheria--Prevention)

CHUVALOVA, M.T.; ROZENMAN, L.A.

Antibiotics in control of diphtheria bacterial carriage. *Pediatrics*,
Moskva no.6:65-72 Nov-Dec 1953. (GIML 25:5)

1. Of the Infectious Division of the Department of Pediatrics (Head
of Department -- Prof. G. N. Speranskiy, Active Member AMS USSR; Head
of Division -- Doctor Medical Sciences M. Ye. Sukhareva) of the Central
Institute for the Advanced Training of Physicians and the Laboratory
(Head -- Doctor Medical Sciences Ye. A. Kost) of Clinical Order of Lenin
Hospital imeni S. P. Botkin.